

An Intermediate School Transition to Electronic Portfolios

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Abstract: Student portfolios have been adopted at many schools as a subjective form of assessment. Students showcase and reflect upon their learning throughout the year. They then present these portfolios to their parents during a student led conference once a year. Currently, a paper-based portfolio is a requirement at an intermediate school on Maui; however, this means of data collection has become outdated in this digital age. The purpose of this instructional design module was to assist 7th grade students in creating an electronic portfolio using Weebly, an online website creator, at an intermediate public school on Maui. The module was delivered through a website created using Weebly and included instructional videos that were made using Camtasia, a screencasting program. The results indicated that the instructional module was effective in creating an electronic portfolio, but further research is necessary to determine the effectiveness of an electronic portfolio over its paper-based counterpart.

Introduction

Currently, students at a public intermediate school on Maui utilize a paper-based portfolio. At the end of each quarter, students place at least one piece of evidence from each of their classes and write a reflection on that particular piece. In most classes, the teacher chooses the evidence that is to be placed into the portfolios. The students then used their portfolio for a student led conference where the portfolio is presented and reviewed by the student and his/her parent(s). The purpose of this project is to develop an instructional design module to assist 7th grade students in creating an electronic portfolio using Weebly, a website creator, at an intermediate public school on Maui. By transitioning to an electronic portfolio, students will be able to access and work on it more frequently than its paper counterpart. They will also be able to choose additional work they would want to showcase. The electronic portfolio would also be a good transition going into high school where a portfolio is one part of obtaining a Board of Education diploma.

Weebly, an online website creator, was chosen for its drag and drop simplicity. There is no need to write cascading style sheets (CSS) codes, a complicated method for creating web sites best left for design professionals. The students are able to click and drag on elements they want and customize it to their liking. Protecting students' digital presence also is important. Educators are able to password protect the student's websites to prevent

unwanted people from viewing the students sites.

Background

Incoming 6th grade students at a public school on Maui are required to create a portfolio. They are to maintain it throughout their intermediate school career and take it with them to high school. A portfolio at the K-12 education level is essentially a collection of a student's work, which can be used to demonstrate his or her skills and accomplishments (Lanks, 1995).

“An e-portfolio is an electronic format for learners to record their work, their achievements and their goals, to reflect on their learning, and to share and be supported in this” indicated Banks (2004, p3). By transitioning to electronic portfolios, students might be more engaged in creating and maintaining their portfolio over its paper-based counterpart. Seigle claims, “the process sharpens students' technology skills and heightens their sense of accomplishment” (2002, p.60).

Aside from the academic classes, students are also involved in afterschool clubs. One such club is the Media Club. Students create public service announcements and other types of videos. They would be able to upload this type of media into an electronic portfolio, something that cannot be done with a paper-based portfolio. According to Banks, electronic portfolios “enables learners to represent the information in different formats” (2004, p. 3) such as videos and music. With it, they will be able to showcase more of what they are involved in because of its multimedia integration capabilities.

Electronic portfolios directly relate student work to the stated standards, but they have additional advantages as well.

- Portfolios demonstrate wider dimensions of learning than just paper-and-pencil reports or exercises. For example, within an electronic portfolio, a student can play a digitized Cape (recording) of the most important part of his persuasive speech or show a movie of how he used math and science to help rebuild a park area.
- Various parts of electronic portfolios can be interconnected through hyperlinks. Papers and materials do not get lost or misplaced. New student work can replace older work with minimal effort. There is no need to search through a thick manila folder.

Electronic portfolios save space. Each student's paper portfolio documenting the K-12 years could take two filing drawers per student (Tutle, 1997).

Students are able to document what they have done in their classes and reflect on their experience. E-portfolios provide rich opportunities for metacognition through periodic (and often required) reflections which may help students develop an array of outcomes and skills (Miller, 2009). Students not only gain a deeper understanding about a class, but also make connections between classes. Yancey indicated “electronic portfolios tend to operate in a larger form of reference, across courses and often across experiences” (2009, p.32). For example, students who learned about torsion in a science class will be

able to apply that knowledge in an introduction to engineering technology class when building prototype structures.

Web 2.0 and other technology tools are making it quicker and easier than ever to create digital portfolios of student work—a method of showcasing student progress that experts say increases student engagement; promotes a continuing conversation about learning between teachers, parents, and students; and extends academic lessons beyond school walls (Ash, 2011). Wherever there is a computer and an Internet connection, students will be able to access their portfolio. Students are also able to show case their portfolio to anyone with a computer and Internet connection as well.

Methods

The purpose of this project is to develop and manage a structural design module to assist the 7th grade students in creating an electronic portfolio using Weebly, a website creator, at an intermediate public school on Maui. The website contained embedded pre and post surveys. Embedded video tutorials provide instruction along with additional resources for each section.

Instructional strategies

In consideration of the participants beginning level of technology skills, instruction was designed to be user-friendly for the intermediate school student. The site was designed so that the user could work through the module linearly making it easier for the user to navigate. An introductory video was included to provided an overview of the module. The module was broken into different sections with instructions in creating a baseline for the students' portfolio.

Technologies

Weebly, a website creator, was used in the development of the module. It was chosen for its ease-of-use, where the user would not have to know how to write any CSS codes. It provides simple drag-and-drop elements which eliminates the need to write codes. Participants' websites can also be password protected.

The screen casts were created with Camtasia, a screen capture recording tool. It provides the participant with visual and auditory instructions.

Population

A call for participants was sent via e-mail to current Hawaii, K-12, public school teachers. The participants were directed to a link at which they would evaluate the module. A username and password was also provided for them to create a website.

Data collection

Data was collected using pre and post surveys, and websites that participants created were evaluated, to determine the effectiveness of the instructional module. The surveys were created using Weebly Survey. To assure that the surveys were anonymous, there were no questions identifying the participants. Likert scale questions were in the pre and post survey. Open-ended responses were also in the survey to allow for further comments. The websites that were created by the participants were evaluated against the instructions that were given in the module.

Results

Out of 12 participants who responded to the pre survey, only 1 indicated that they had an electronic portfolio. This gave the study a good indication of the participants having no preconceived notion of what was expected of the module. Half of the participants had no knowledge of creating a website.

Overall, the participants found the module easy to follow. The audio was clear and easy to understand. Visually, the participants agreed that it would appeal to its target audience. The only downfall was the timing, as 3 of the participants felt that the module was too long.

Of the 12 participants, 11 attempted to follow the module and create an electronic portfolio with the expected elements. Some of the elements that were expected to be in their portfolio were a Home, About Me, Goals, Extra Curricular Activities and Classes page (Fig. 1). The participants also had to create sub-pages under some of the primary pages.

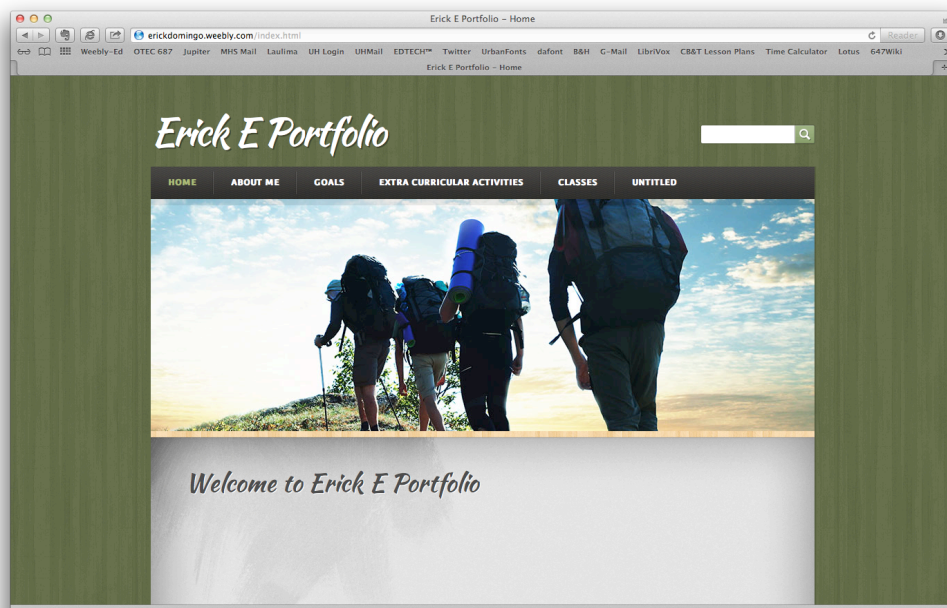


Fig. 1

Not all of the participants were able to create their portfolio exactly as instructed in the module. Of the 11 participants who attempted to create an electronic portfolio, 8 were able to create their website exactly as instructed. Of the three participants who did not create their portfolio exactly as instructed, one created a home page and did not go any further. Another participant used the instruction and created his/her own personal electronic portfolio. The third participant placed some sub-pages in the wrong area. A mistake such as this could be easily corrected.

Discussion

Although most of the participants do not have an electronic portfolio of their own or have a minimal knowledge on creating a website, they are willing to incorporate this module into their classroom.

One participant expressed that there should be an on site expert for those teachers who are not technologically literate. Although we are in a time where most things that surround us use modern technology, some teachers may still be intimidated by it. By having someone there to guide them through instructing the students would be of great benefit.

The module that participants participated in contained instructions on creating the basics of an electronic portfolio for the middle school student. A participant expressed that they would like to have instructions on uploading files to the site. This would be something to consider if the school decides to move in the direction of electronic portfolio. More modules can be created to take advantage of what can be done with their website.

There were written instructions that accompanied the videos. One participant found that the written instructions were hard to follow, but after watching the accompanying video the instructions became clear. Another participant recommended using a larger font to appeal to the target audience. By increasing the font size it will be more likely that the target audience would read the instructions.

There will need to be an update to the module to address the issue of having sub-pages in the wrong position. There should be a summarization video to indicate what elements need to be in the portfolio and where the elements should be. This will give the participants another opportunity to review their portfolio and make any corrections before having it published.

There are many tools that may be used to create an electronic portfolio. Weebly is just one tool. The idea is not to choose what tool to use, but rather get the students to transition their portfolios electronically. The primary reason Weebly was used in this study was its ease of use. There is no need to write CSS codes, simply drag and drop what is needed into place. Secondly, the student's websites can be password protected by the instructor. This limits who will be able to view the portfolios.

Conclusion

Today's middle school students have a lot to show for. Not just in their academics, but also in the clubs that they participate in and extra curricular activities. This study suggested that the use of an electronic portfolio could be used as an alternative to a paper-based portfolio. Students would be able to include pictures, videos as well documents that they find pertinent to having in their portfolio.

Future use of electronic portfolios at an intermediate school on Maui may now be more likely as a result of the instructional module. The results of the study indicated an interest in implementing the use of electronic portfolios as opposed to the current paper-based portfolio being utilized. Further research would be needed to determine the validity of an electronic portfolio as opposed to its paper-based counter part.

For schools that may want to implement electronic portfolio into their school, they should consider a few things before having students start on their own e-portfolios. First, there should be an infrastructure in place to handle the demand that would be placed on it. If there is not enough Internet bandwidth to cover the demand that will be placed up, the school should address it before getting started. It could be counter productive for students if they will have to wait for the Internet to create their e-portfolios. Second, start slow. There is no need to have the entire student body create an e-portfolio all at the same time. Start with the incoming 6th grade class and have them maintain it throughout their intermediate/middle school career, and continue to do it with each incoming 6th grade class. In three years, the entire student body would have an e-portfolio and both teachers and students could learn in the process. Finally, keep it simple. If the modules become complicated, the students might resist or not create an e-portfolio all together.

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